

Work Per	mit # DRL-2012-	10/SS-2012-152
Work Ord	der #	
Job#	Activitv#	

See "Instructions for Filling out the Work Permit" contained in the Work Planning and Control for Experiments and Operations Subject Area. 1. Work request WCC fills out this section. ☐ Standing Work Permit Requester: Don Lynch Date: 3/27/12 Ext.: 2253 Dept/Div/Group: PO/PHENIX Other Contact person (if different from requester): Carter Biggs Ext.: 7515 Work Control Coordinator: D. Lynch Start Date: 3/28/12 Est. End Date: 3/28/12 Brief Description of Work: Move IR Crane carriage from Southwest Parked position to Over Bridge platform to allow for Preventive Maintenance on IR AC's Building: 1008 Room: IR Equipment: IR Crane Service Provider: 2. WCC, Requester/Designee, Service Provider, and ESS&H (as necessary) fill out this section or attach analysis **ESS&H ANALYSIS Radiation Concerns**  None ☐ Activation Airborne Contamination ☐Radiation ☐ NORM Other ☐ Special nuclear materials involved, notify Isotope Special Materials Group ☐ Fissionable/Radiological materials involved, notify Laboratory Nuclear Safety Officer Radiation Generating Devices: Radiography ☐ Moisture Density Gauges ☐ Soil Density Gauges X-ray Equipment Safety and Security Concerns ☐ Transport of Haz/Rad Material ☐ Pressurized Systems ■ None Explosives ☐ Adding/Removing Walls or Roofs Critical Lift ☐ Fumes/Mist/Dust\* ☐ Railroad Work ☐ Asbestos ☐ Cryogenic ☐ Heat/Cold Stress ☐ Nanomaterials/particles\* Rigging ☐ Beryllium\* Electrical ☐ Hydraulic ☐ Noise\* ☐ Silica\* ☐ Elevated Work ☐ Non-ionizing Radiation\* ☐ Biohazard\* ☐ Lasers\* ☐ Security Concerns ☐ Chemicals/Corrosives\* Excavation Lead\* Oxygen Deficiency\* ☐ Suspect/Counterfeit Items Material Handling ☐ Confined Space\* ☐ Penetrating Fire Walls ☐ Vacuum Ergonomics\* \* Safety Health Rep. Review Required Haz. Rad. Bio Material Exceed DOE 151.1-C Levels - Contact OEM ☐ Other ☐ Work impacts Environmental Permit No. **Environmental Concerns** ⊠ None ☐ Land Use Institutional ☐ Atmospheric Discharges (rad/non-rad) ☐ Soil Activation/contamination ☐ Waste-Mixed Controls ☐ Chemical or Rad Material Storage or Use ☐ Waste-Clean ☐ Waste-Radioactive ☐ Liquid Discharges Cesspools (UIC) ☐ Oil/PCB Management ☐ Waste-Hazardous ☐ Waste-Regulated Medical ☐ High water/power consumption ☐ Spill potential ☐ Waste-Industrial ☐ Underground Duct/Piping Waste disposition by: Other Pollution Prevention (P2)/Waste Minimization Opportunity: ⊠ No □ Yes **FACILITY CONCERNS** ☐ Intermittent Energy Release ☐ None ☐ Vibrations ☐ Electrical Noise ☐ Potential to Cause a False Alarm Limitations □ Temperature Change Other ☐ Impacts Facility Use Agreement Configuration Management Maintenance Work on Ventilation Systems Utility Interruptions **WORK CONTROLS Work Practices** ☐ Exhaust Ventilation □ Spill Containment ■ None ☐ Security (see Instruction Sheet) □ Back-up Person/Watch ☐ HP Coverage ☐ Posting/Warning Signs ☐ Time Limitation ☐ Other ☐ Barricades ☐ IH Survey ☐ Scaffolding-requires inspection ☐ Warning Alarm (i.e. "high level") ☐ Electrical Inspection Required Personal Protective Equipment ☐ Ear Plugs Gloves ☐ Lab Coat ☐ Safety Glasses ☐ Coveralls ☐ Ear Muffs Respirator\* ☐ Safety Harness ☐ Goggles ☐ Disposable Clothing ☐ Face Shield ☐ Hard Hat ☐ Shoe Covers ☐ Safety Shoes ☐ High visibility cloths/vest ☐ Other Permits Required (Permits must be valid when job is scheduled.) None ☐ Cutting/Welding ☐ Impair Fire Protection Systems □ Digging/Core ☐ Concrete/Masonry Penetration Rad Work Permit-RWP No Drilling ☐ Electrical Working ☐ Confined Space Entry ☐ Other Dosimetry/Monitoring ☐ Heat Stress Monitor ☐ Real Time Monitor □ TLD ☐ Air Effluent ☐ Noise Survey/Dosimeter ☐ Self-reading Pencil Dosimeter ☐ Waste Characterization O<sub>2</sub>/Combustible Gas ☐ Ground Water Self-reading Digital Dosimeter ☐ Other ☐ Liquid Effluent Passive Vapor Monitor ☐ Sorbent Tube/Filter Pump Training Requirements (List specific training requirements) PHENIX Awareness, Collider User Training or equiv., rigging Based on analysis above, the Review Team determines the risk, complexity, and If using the permit when all hazard ratings are low, only the following need to sign: ( coordination ratings below: Although allowed, there is no need to use back of form) ESS&H Risk Level: Low ☐ High WCC: Date: Complexity Level: ∠ Low ☐ High Service Provider: Work Coordination: ☐ Low ☐ High Authorization to start Date:

(Department/Division, or their equivalent, Sup/WCC/Designee)

3. Both work requester and service p	provider contribute to work plan	(use att	achments for detailed plans)					
Work Plan (procedures, timing, equipment, scheduling, coordination, notifications, and personnel availability need to be addressed in adequate detail):  During Restricted Maintenance access prior to F&O workers accessing the area above the MulD steel for planned PM on PHENIX AC units, PHENIX techs shall unlock and energize the PHENIX IR crane, move the crane carriage from its normal stow position at the southwest corner of the IR to a position above the Central Magnet rack bridge platform and lock the crane out of service.  Note: This work permit allows the repositioning of the crane only; no lifting or any other use of the carne during this maintenance access period is permitted.								
After completion of PM work by F&O, PHENIX techs may unlock and reenergize the crane, move it back to its stow position and again lock the crane out of service.								
Special Working Conditions Required (e.g., Industrial Hygiene hold points or other monitoring) None								
Notifications to operations and Operational Limits Requirements:								
Post Work Testing, Notification or Documentation Required:								
Job Safety Analysis Required: ☐ Yes ☒ No								
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Reviewed by: * Primary Reviewer signature means that the Review Team members were appropriate for the work that was planned, the Team visited the job site, hazards and risks that could impact ESS&H have been considered and controls established according to BNL requirements. In addition, this signature indicates that applicable JRAs, FRAs, as well as								
other planning documents have been review	ed and training requirements have bee	en identifie	ed and recorded on this permit.					
<u>Title</u>	Name (print)	Signat	<u>ture</u>	Life #	Date			
ES&H Professional								
F&O Facility Project Manager								
Service Provider								
Work Control Coordinator	Don Lynch			20146				
Safety Health Representative								
Research Space Manager								
Other								
Other	-							
Required Walkdown Completed								
*Primary Reviewer								
		I						
4. Job site personnel (Supervisor an Note: Signature indicates personnel perform	ing work have read and understand the							
permit is current/complete. Job Supervisor/C Job Supervisor:	ontractor Supervisor signatures also in	includes ve	erification that worker training required for Contractor Supervisor:	this permit is curren	t/complete.			
Workers:	Life#:		Workers :	Life#:				
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Workers are encouraged to provide feedback	Con ESS&H concerns or on ideas for if	ımprovea j	Job work flow. Use feedback form or space	e below.				
5. Department/Division, or their equivalent, Line Manager or Designee								
Conditions are appropriate to start work: (Permit has been reviewed, work controls are in place and site is ready for job.)								
Name:	Signature:		Life#:	Date:				
6. Worker provides feedback.  Worker Feedback (use attached sheets as necessary)								
a) WCM/WCC: Are there any changes as a result of worker feedback? ☐ Yes ☐ No								
Note: See Work Planning and Control for Experiments and Operations Subject Area section 2.6.								
7. Post Job Review/Closeout: Work Control Coordinator (authorizing dept.) checks quality of completed permit and ensures the work site is left in an acceptable condition. (WCC can delegate clean up of job site to work supervisor.) The WCC ensures that the change process to update drawings, placards, postings, procedures, etc., is initiated, if necessary.								
Name:	Signature:		Life#:	Date:				
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Comments:								